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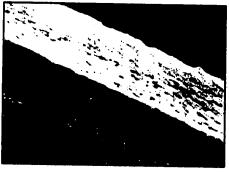
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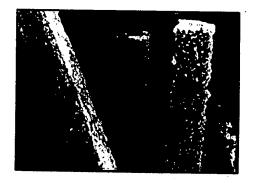
FIG. 1A



3.5KV X33,000 8mm

200,000 OHHI

FIG. 1C



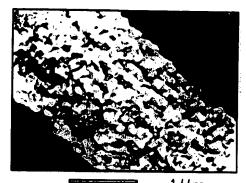
- 1 μ m 3.5KV X18,000 7mm

FIG. 1E



 -1μ m 0020 3.5KV X4,500 15mm

FIG. 1B



 $1\mu \text{m}$ 414619 3.5KV X33,000 24mm

FIG. 1D



 $= 1 \mu m$ 3.0KV X45,000 15mm

FIG. 1F



 $= 1 \mu \text{m}$ 0014 3.5KV X4,300 15mm

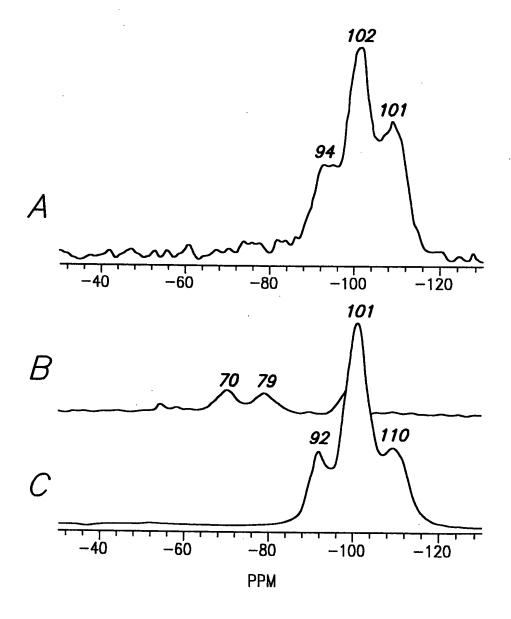


FIG. 2

FIG. 3

$$R = -(CH_2)_4 NHC(0)OCH_2 C_6 H_5$$

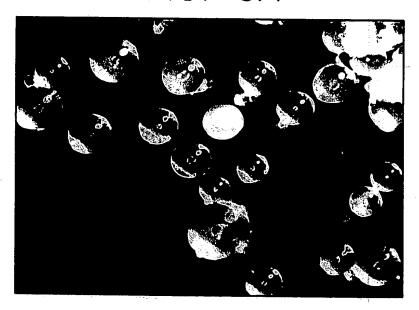
[Ni] = INITIATOR ENDGROUP

$$R' = -(CH2)4NH3+BR$$

 $Z = -C(0)OCH_2C_6H_5$

FIG. 4

FIG. 5A



- 200µm

FIG. 5B



- 1 μ m 3.0KV X6,500 14mm

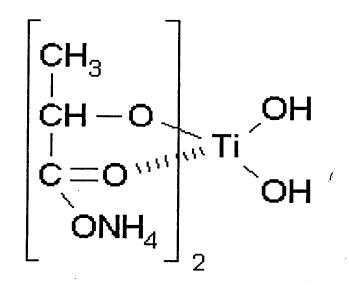


FIG. 6

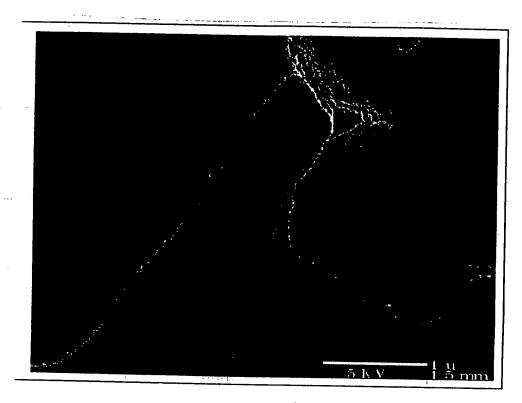


FIG. 7A

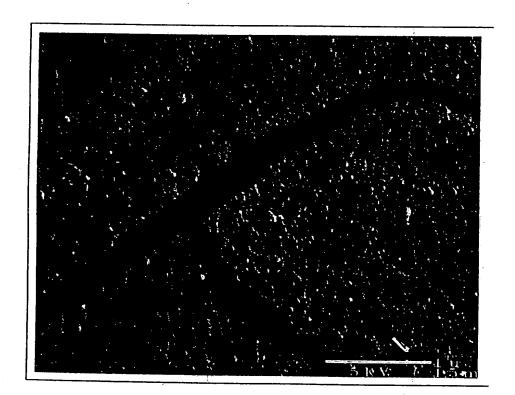


FIG. 7B

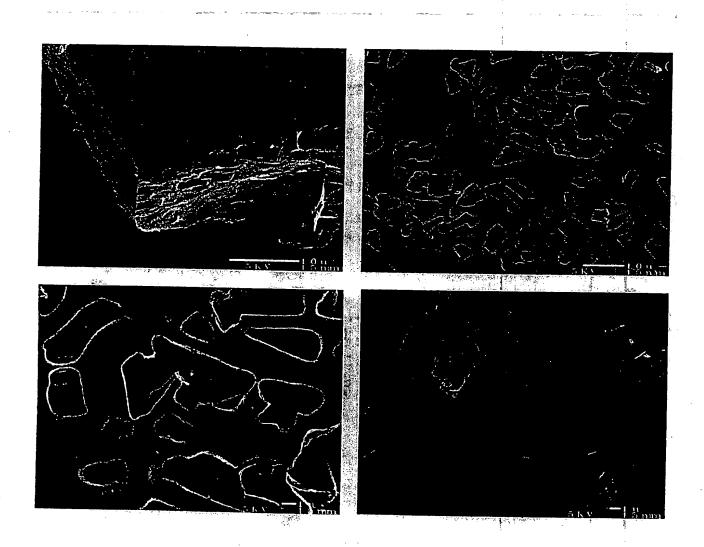
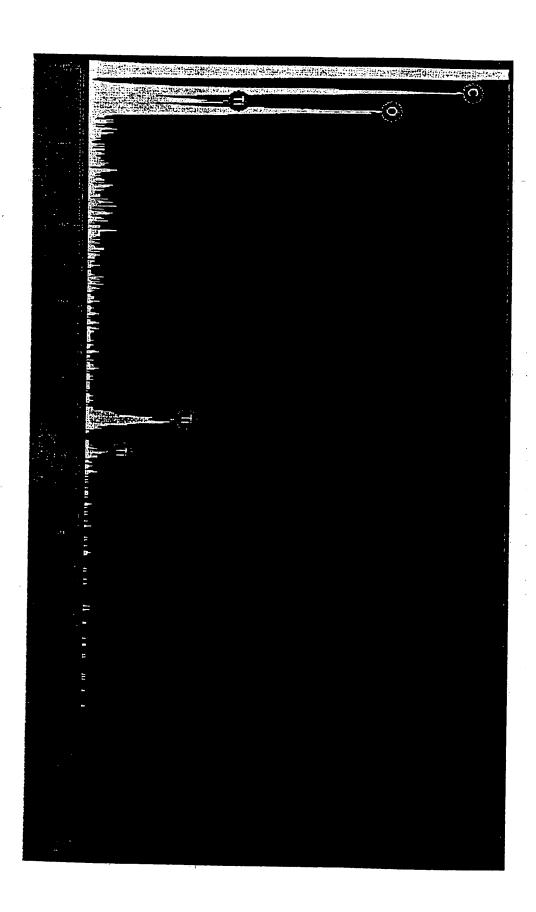


FIG. 8



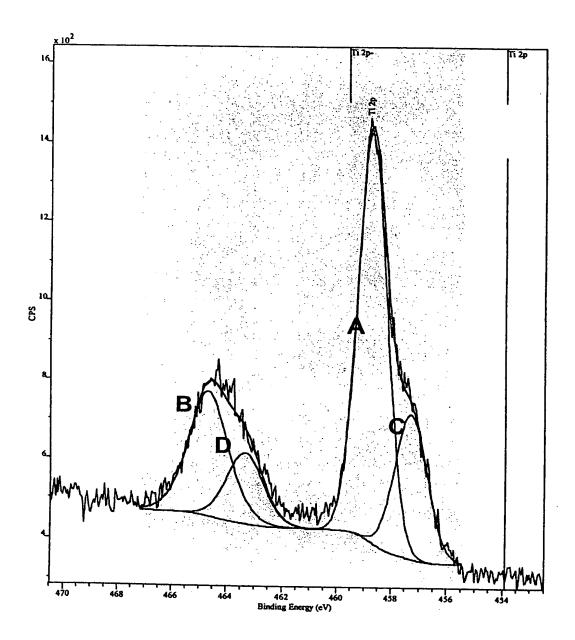


FIG. 10

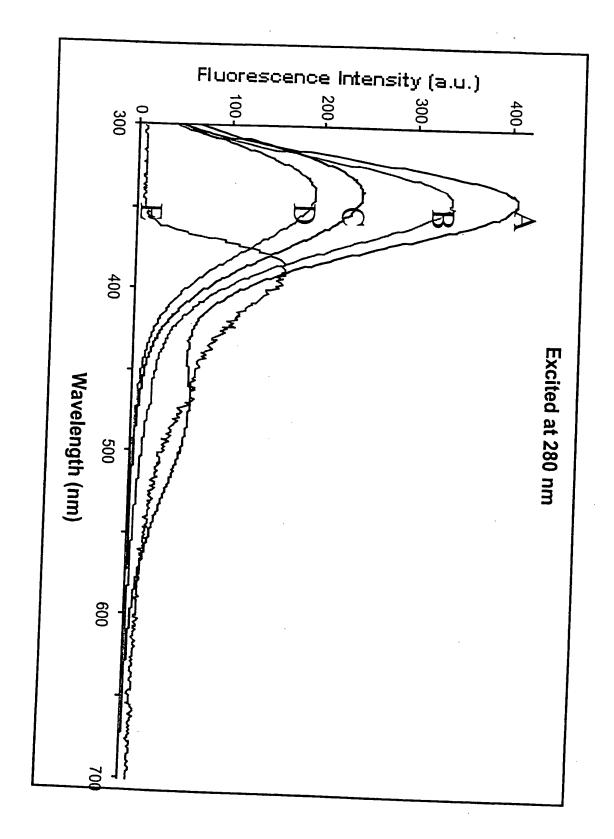


FIG. 11

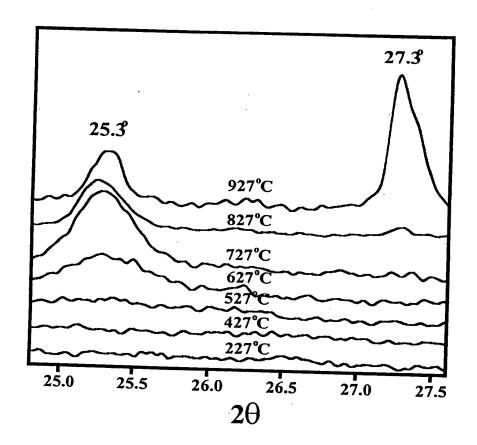


FIG. 12

Catalyst	Temp	Polymorph	Av. Crystal Size (nm)
Silicatein	400	Anatase	2.0
	600	Anatase	9.1
	800	Anatase	19.0
	850	3% Anatase 97% Rutile	54.2
Base	600	Anatase	13.5
	700	98% Anatase 2% Rutile	22.6
	800	40% Anatase 60% Rutile	34.1 42.0
	850	Rutile	53.1
None	600	Anatase	4.5
	800	10% Anatase 90% Rutile	32.0
	850	Rutile	44.8

FIG. 13